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PALAEOAPHRODITE RAETICA N. GEN. N. SP.,
A NEW FOSSIL POLYCHAETE ANNELID
OF THE RHAETIC OF LOMBARDY

Abstract. — *Palaeoaphrodite raetica*, a new genus and new species of polychaete annelid from Ponte Giurino (Imagna Valley, Bergamo), in the Argilliti di Riva di Solto Formation (Rhaetic) is here described. It is the sole fossil representative of the Aphroditidae family.

Riassunto. — *Palaeoaphrodite raetica n. gen. n. sp.*, un nuovo anellide poliehete fossile del Retico della Lombardia.

Viene descritto il nuovo genere e la nuova specie di anellide polichete *Palaeoaphrodite raetica* rinvenuto a Ponte Giurino (Valle Imagna, Bergamo) nella formazione retica delle Argilliti di Riva di Solto. Si tratta dell'unico rappresentante fossile della famiglia Aphroditidae.

We describe here a specimen of errant polychaete found in the black shales outcropping at Ponte Giurino (Imagna Valley, Bergamo), which belong to the Argilliti di Riva di Solto Formation (Rhaetic). This fossiliferous locality is already known to palaeontological literature, since remains of fishes (ZAMBELLI, 1980; TINTORI et al., 1985) and tylacocephalian crustaceans (ARDUINI & BRASCA, 1984) from this outcrop were already described.

Among the numerous, not yet described fossil forms of this deposit, there is a specimen which can be assigned with absolute certainty to the polychaete annelids, and in particular to aphroditaceans. The fossil remains of such aphroditaceans, as of fully preserved errant polychaetes, are not common at all. The oldest remains of aphroditaceans (order Phyllodocida Dales, 1962) are those of North American Devonian, where

the genus *Protonimpha* Clarke, 1903 is recorded. THOMPSON (1979) described three new genera of aphroditaceans (*Hystriciola*, *Dryptoscolex* and *Fastuoscolex*) from the Upper Carboniferous of Mazon Creek, Illinois, that she considered as belonging to the new subfamily *Hystriciolinae* Thompson, 1979.

Another fossil genus of aphroditaceans was recorded in the Bundsandstein of Vosges Mountains (*Homaphrodite* Gall & Grauvogel, 1967).

According to FAUCHALD (1977), the superfamily Aphroditacea includes the families Aphroditidae, Polynoidae, Polyodontidae, Pholoididae, Eulepeltidae and Sigalionidae. As far as fossil aphroditaceans are concerned, GALL & GRAUVOGEL (1967) assign the genus *Homaphrodite* to the family Polynoidae (which both authors consider as a subfamily). As for the Mazon Creek genera, THOMPSON established the subfamily *Hystriciolinae* (here regarded as a family), whereas *Protonimpha* is compared by CLARKE with the forms belonging to the family Polynoidae (Polynoinae *sensu* CLARKE, 1903).

The specimen under examination can be therefore considered as the oldest fossil representative of its family.

Order Phyllodocida Dales, 1962

Superfamily Aphroditacea Fauchald, 1977

Family Aphroditidae Savigny, 1818

Gen. *Palaeoaphrodite* nov.

Derivatio nominis: from Greek παλαιός = ancient, and from *Aphrodite*, current genus.

Type species: *Palaeoaphrodite raetica* n. sp.

Description: coinciding with that of the type species.

***Palaeoaphrodite raetica* n. sp.**

Derivatio nominis: from its Rhaetic age.

Holotype: N. cat. i 7842, Collection of the Museo Civico di Storia Naturale di Milano.

Type locality: Ponte Giurino, Imagna Valley, Bergamo.

Geological age: Rhaetic.

Diagnosis: small-sized aphrodite with oval body and biramous parapodia featuring long setae clumped in strong tufts. Small subcircular elytra are scattered on the notopodial setae.



TAVOLA I. — *Palaeoaphrodite raetica*. Type specimen. N. cat. i 7842 ($\times 4,6$ ca).



TAVOLA II. — Fig. 1. *Palaeoaphrodite raetica*. Type specimen. N. cat. i 7842; enlarged part from seventh to ninth left parapodium; e: elytron. ($\times 12,5$ ca). - Fig. 2. *Palaeoaphrodite raetica*. Type specimen. N. cat. i 7842; end part; e: elytron ($\times 6,5$ ca).